A National Dataset of State/Territory-Level COVID-19 Policies for Post-Acute Care Settings: Implications for Patient Care

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BACKGROUND

- Since the beginning of the COVID-19 pandemic,[1] state and territorial governments in the United States have implemented executive and public health orders to mitigate viral spread.
- Several federal government-level policies were aimed at post-acute care facilities, such as skilled nursing facilities (SNFs) and home healthcare agencies (HHAs), which serve older adults at high risk of developing severe COVID-19 symptoms and related mortality.[2,3]
- However, it is not clear how many states and territories enacted their own policies for these settings.
- Although several databases exist to track COVID-19 cases, outcomes, and policies,[4,5] there are currently no state/territory-level COVID-19 policy datasets specifically for post-acute care facilities.

RESEARCH OBJECTIVE

We developed a state/territory-level (all 50 states, D.C. and U.S. territories) dataset of executive and public health orders aimed at mitigating the impact of COVID-19 for patients in post-acute care settings (SNFs and HHAs).

STUDY DESIGN

- Multiple online sources were checked, including the Council of State Government's (CSG) website,[6] Executive Orders, Public Health Orders and Governor Office News Briefings.
- Initial searches were conducted in the order of a state/territory's FIPS code using terms such as "[state/territory name]" in combination with "COVID-19 policies", "executive orders", "public health orders" and "governor office news briefings".
- More detailed searches were conducted for each state/territory to identify extensions, line-by-line modifications, and accurate end dates of policies.
- For each policy, the following data were collected in Excel: start date, end date, healthcare setting (SNF/HHA/Both/General), data source, website, and comments.
  - Policies directed at healthcare providers in general, without specifying the setting, were categorized as "General."
  - Policies directed at skilled nursing facilities <u>or</u> home health agencies by title were listed as "SNF or HHA Only", whereas those that address both settings were categorized as "Both SNF & HHA".
  - The data source indicated the title and URL of the specific policy or news briefing.
  - Comments include a brief description of the specific policy that supports its classification under a specific policy category and sub-category.
- Polices were broadly grouped under main categories, and further classified into sub-categories for ease of understanding and analysis.
  - Categories were determined by policy content,[7] research team knowledge of setting, and qualitative interviews conducted with facility/agency staff for another portion of the study.
- The SNF policy dataset was merged with weekly confirmed COVID-19 case and death data (in SNFs) from the National Healthcare Safety Network (NHSN)[8] in Stata 17[9].
- In the dataset, the COVID-19 pandemic was divided into four time periods: 1) beginning to 5/24/20; 5/25/20-12/13/20; 12/14/20-04/11/21; 4/12/21-12/12/21.
- A normalized policy intensity score was calculated by dividing the number of policies in place (aggregated over a two months period) for each main category by the maximum policies in place over that period.
- Policy intensity scores were mapped in Tableau™,[10] as well as confirmed COVID-19 deaths in SNFs per 1,000 SNF residents during the four time periods (incidence rate).

Table 1. Categorization and Examples of SNF and HHA COVID-19 Mitigation Policies

Main Category	Definition	Example
1. Preventing Virus Transmission	Policies that identify or prevent COVID-19 exposure	On 03/20/20, the Alabama Order of the State Health Officer declared that all SNFs shall prohibit visitation of all visitors and non-essential health care personnel except in compassionate care situations.
2. Expanding Facility / Agency Capacity	Policies that increase the workforce, available space/locations, or funding	On 12/01/20, Tennessee Executive Order 68 suspended provisions to the extent necessary to allow hospitals, SNFs and HHAs that would otherwise be subject of certificate of need.
3. Relaxing Administrative Requirements	Policies that ease the facility/agency's ability to see patients	On 04/07/20, Indiana Executive Order 20-19 waived existing code to allow an HHA to accept written orders for home health services from any licensed physicians, nurse practitioner, clinical nurse specialist or physician assistant acting within the scope of his or her practice authorized under state law.
4. Reporting COVID-19 Data	Policies requiring the sharing of COVID related data	On 04/01/20, Oklahoma Seventh Amended Executive Order 2020-07 stated that every public or private entity using an FDA-approved test for human diagnostic purposes of COVID-19 shall submit daily reports to the Oklahoma State Department of Health.
5. Reinforcing SNF Policies	Policies addressing the transfer or discharge of patients	On 12/11/20, New York Executive Order No. 202.81 allowed hospitals to discharge a patient who did not have a negative COVID-19 test to a COVID-positive only facility if such facility first certifies that it is able to properly care for such patient

Icons: The Noun Project

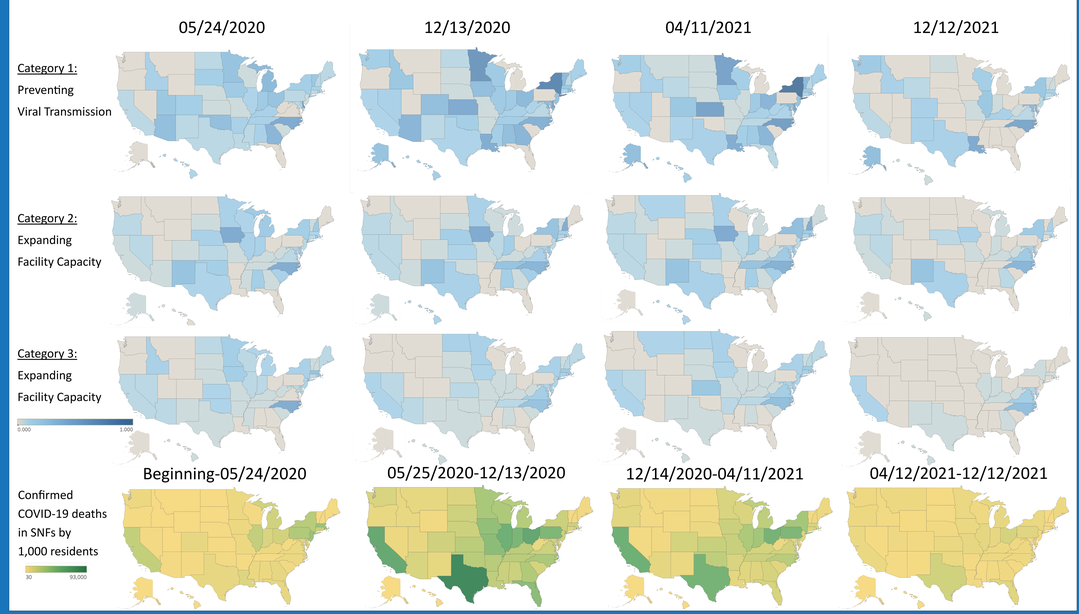
Figure 1. Subcategories of Preventing Viral Transmission in SNFs

1. Restricting visitation
2. Testing and evaluation of SNF staff for COVID-19 symptoms
3. Testing and evaluation of SNF residents for COVID-19 symptoms
4. COVID-19 vaccination of SNF staff
5. COVID-19 vaccination of SNF residents
6. Restricting gathering within SNFs
7. Restricting SNF staff from travel
8. Clean and disinfect the SNF
9. Hand hygiene
10. Keep infected SNF staff at home
11. Provision or usage of appropriate PPE including masks
12. Cohort COVID-19 positive / unknown residents from COVID-19 negative residents
13. Adhere to CDC/CMS/public health department guidelines
14. Offer an electronic visual form of communication
15. Quarantine / isolate residents
16. Assign a cohort of SNF staff to care for residents with known or suspected COVID-19
17. SNF staff must complete additional training

Table 2. Number of SNF and HHA Policies Enacted from 3/1/20 to 7/1/22

Main Categories	# of Policies				
	SNF	HHA	Both	General	Total
1. Preventing Virus Transmission	302	6	25	372	705
2. Expanding Facility/Agency Capacity	53	3	5	243	304
3. Relaxing Administrative Requirements	32	15	10	136	193
4. Reporting COVID-19 Data	34			39	73
5. Reinforcing SNF Policies	37			12	49
Total	458	24	40	802	1,324

Figure 2. SNF Policy Intensity by State and COVID-19 Deaths in SNFs as a function of SNF Resident Population Over Time



PRINCIPAL FINDINGS

- We identified 1,324 COVID-19-specific policies aimed at SNFs and HHAs between March 1st, 2020, and July 1st, 2022, from all 50 states, D.C. and U.S. territories.
- These policies were characterized by their start and stop dates, as well as policy extensions.
- Of these policies, 802 were general policies, 458 policies applied specifically to SNFs, 24 to HHAs, and 40 to both SNF and HHAs.
  - For SNFs, there are 5 main categories and 35 sub-categories.
  - For HHAs, there are 3 main categories and 23 sub-categories.
- The category with the most policies was preventing virus transmission (705), followed by expanding facility/agency capacity (304), relaxing administrative requirements (193), and reporting COVID-19 data (73).
- The category with the fewest policies was reinforcing SNF policies (49).
- We found wide variation across states and territories in the types and number of policies enacted for post-acute care settings over time.

CONCLUSIONS

- While federal policies aimed at post-acute care settings were enacted in March 2020, many states/territories expanded on (i.e., strengthened) those policies at the state/territory-level as the pandemic progressed.
  - There were more SNF-specific policies while HHA-specific policies were limited.
- This is likely due to the severe impact of COVID-19 on the elderly, particularly SNF residents and the congregated living situation in SNFs.
- For example, 69 visitation restrictions were implemented at the state/territory-level in SNFs nationwide.
- More complex analyses are needed to understand the impact of state/territory-level policies on COVID-19 mitigation in post-acute care settings.

IMPLICATIONS FOR POLICY AND PRACTICE

- Using this dataset, researchers can generate evidence on how state-level policies impact patient care in post-acute care settings and evaluate the effectiveness of such policies in protecting vulnerable populations.
- This knowledge can inform policymaking for future pandemics.

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